

## DRAFT

# INFORM, Long Island, New York – A Regional TMC Operated through a Contracted Operations Model

## 11.1 Introduction

The INFORM (INformation FOR Motorists) system is one of the nation's largest and most advanced traffic management systems for motorists. At the core of INFORM is the Transportation Management Center, located at the State of New York Department of Transportation, District 10, Long Island Regional Headquarters in Hauppauge, New York. Unique system features, as it relates to business planning, include:

- Operational and technical support of the system is performed by private transportation firms, under contract to the New York State Department of Transportation. The contracted operations staff is present in the TMC 24 hours a day, 7 days a week, 365 days a year.
- INFORM has a significant 'history' of implementation and maintenance costs, facilitating the justification process for system expansion.
- An ITS Strategic Deployment Plan is the primary document used for prioritizing system functions, enhancements and expansion, including field devices and capabilities within the TMC.

### 11.1.1 General System Description

The INFORM corridor currently contains two major freeway facilities, and a number of parallel and crossing arterial streets and freeways. The system consists of video and electronic traffic surveillance and monitoring, communications, signing and control components, providing motorist information for warning and route diversion, ramp control, and signal control. INFORM operators also dispatch Highway Emergency Local Patrol (HELP) vehicles.

### 11.1.2 General Objectives of System

The objectives of the INFORM system include:

- Identifying traffic congestion and incidents likely to cause congestion; and
- Providing information to motorists and incident management personnel.

## 11.2 Design and Implementation

Planning studies completed in the 1970's and 1980's laid the framework for the \$30 million initial demonstration deployment that first went operational in 1987. The original system covered 140 centerline miles of roadway, instrumented with dynamic message signs and vehicle detection devices, including over 2400 loop detectors. While the initial system did not include CCTV, over 80 CCTV cameras have since been deployed.

### Geographic Area Covered

All roadways within the INFORM system are operated and maintained by the State of New York Department of Transportation. The system extends from the Borough of Queens in New York City, through Nassau County and into Suffolk County. The INFORM corridor contains two major freeway facilities, I-495 (Long Island Expressway), the Northern State Parkway/Grand Central Parkway, and a number of parallel and crossing arterial streets and freeways, for a total of 140 miles of controlled roadways. Ultimate build-out will consist of 320 centerline miles of controlled roadways.

### Participating Agencies and Stakeholders

The NYDOT is the only agency located at the INFORM TMC. However, INFORM coordinates, via telephone, with six different law enforcement agencies responsible for enforcement on the roads covered by the system. Fire and emergency management agencies are contacted through the respective police departments. A new TMC, to be completed in 2004, will include the collocation of New York State Police Communications and Dispatch with the NYDOT. INFORM staff meets on a quarterly basis with State, county and local city police to discuss operational issues and to prepare for special events.

INFORM coordinates extensively with TRANSCOM, the regional travel information provider. Through TRANSCOM, information is shared and disseminated to transit agencies, other agencies, and to the public.

### TMC Functions

- Incident Management Coordination, including
- Entry of incident information into computer system
- Entry of dynamic message sign messages based on incident/congestion observations and reports
- Towing dispatch
- Travel Information Coordination
- Gathering and distributing information regarding construction and lane closures to media and to other agencies
- Faxing information on travel delays and accidents every 15 minutes during peak periods to the 26 partner agencies and the media

### Number and Type of Field Elements

The INFORM system includes:

- Fiber and coaxial cable - 140 miles
- Loop detectors - 2,400
- Dynamic message signs - 113
- Ramp meters - 75
- Intersection traffic signals - 177
- Closed-circuit television - 84
- Citizen band radios – 22
- Help vehicles - 15
- Weather monitors – 9
- Highway Advisory Radio – 2

### 11.3 Organization and Management Structure

The NYDOT contracts to a private consulting firm to provide operators and technical support to INFORM to support its 24-hour operations. The contracted operations staff includes three operators plus two motorist assistance patrol staff during peak hours. The operations contractor has a total staff of 9 operations personnel plus 3 for motorist assistance patrols.

### 11.4 Implications for Business Plan

- INFORM receives strong support for future system expansion and for on-going maintenance needs. Because of the highly congested conditions on NYDOT roadways, and the necessity to manage them more efficiently, INFORM staff do little 'selling' of the system to receive funding for future expansion.

The NYDOT regularly allocates funding to INFORM system expansion and upgrades. An ITS Deployment Plan, most recently updated in October, 2003, provides short-term and long-term prioritization for system expansion on limited access and arterial facilities. As INFORM 'receives' money, the next project listed in the deployment plan is selected for design and construction. A typical project life cycle is approximately two years – one year to design, and one year to build the project. INFORM typically has 3 projects in either design or construction at any given time.

- A common challenge often expressed by TMC managers is that while adequate funding is allocated for system expansion, the operations and maintenance budgets do not keep pace with the expanding operations needs. INFORM managers overcome this challenge by demonstrating, with nearly 20 years of historical data, the incremental funding required to properly maintain each new centerline mile of roadway infrastructure. In their case, INFORM receives 7% of the present net worth of the system for operations and maintenance.
- Many TMCs, including INFORM, lack in-house expertise and resources to repair technical systems. They are required to out-source maintenance to private-sector vendors and technicians. INFORM has again been able to utilize 20 years of historical data to establish a lump sum repair cost, time and materials included, of nearly every system element. Rather than letting maintenance contracts on a time and materials basis, INFORM pays a pre-set lump-sum amount for the repair.
- System operators are provided to the NYDOT by a private sector firm through a contract with the NYDOT, placing the burden of recruiting, hiring, training, and firing, if necessary, on the private contractor.

**To secure adequate maintenance budgets, INFORM managers have demonstrated, with nearly 20 years of historical data, the incremental funding required to properly maintain each new centerline mile of roadway infrastructure.**